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1 **Using AI in knowledge management: knowledge bases and ontologies**
*O'Leary, D.E.;*
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 13 , Issue: 3 , May-June 1998
Pages:34 - 39

[Abstract]    [PDF Full-Text (640 KB)]    **IEEE JNL**

2 **Gellish: an information representation language, knowledge base and ontology**
*van Renssen, A.;*
Standardization and Innovation in Information Technology, 2003. The 3rd Conference on , 22-24 Oct. 2003
Pages:215 - 228

[Abstract]    [PDF Full-Text (728 KB)]    **IEEE CNF**

3 **Using JessTab to integrate Protege and Jess**
*Eriksson, H.;*
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 18 , Issue: 2 , March-April 2003
Pages:43 - 50

[Abstract]    [PDF Full-Text (710 KB)]    **IEEE JNL**

4 **Different firms, different ontologies, and no one best ontology**
*O'Leary, D.E.;*
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 15 , Issue: 5 , Sep-Oct 2000
Pages:72 - 78

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[Abstract]    [PDF Full-Text (251 KB)]    **IEEE JNL**

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### 5 IShopping agent: a knowledge base assisting online shoppers through ontologies
*Wen-Shan Lin; Cassaigne, N.;*
Engineering Management Conference, 2003. IEMC '03. Managing Technologically Driven Organizations: The Human Side of Innovation and Change , 2-4 Nov. 2003
Pages:524 - 528

[Abstract]    [PDF Full-Text (392 KB)]    **IEEE CNF**

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### 6 Cognitive informatics: a knowledge engineering perspective
*Chan, C.W.;*
Cognitive Informatics, 2002. Proceedings. First IEEE International Conference on , 19-20 Aug. 2002
Pages:49 - 56

[Abstract]    [PDF Full-Text (400 KB)]    **IEEE CNF**

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### 7 Automatic ontology-based knowledge extraction from Web documents
*Alani, H.; Sanghee Kim; Millard, D.E.; Weal, M.J.; Hall, W.; Lewis, P.H.; Shadbolt, N.R.;*
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 18 , Issue: 1 , Jan.-Feb. 2003
Pages:14 - 21

[Abstract]    [PDF Full-Text (2527 KB)]    **IEEE JNL**

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### 8 DAML+OIL: an ontology language for the Semantic Web
*Mcguinness, D.L.; Fikes, R.; Hendler, J.; Stein, L.A.;*
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 17 , Issue: 5 , Sept.-Oct. 2002
Pages:72 - 80

[Abstract]    [PDF Full-Text (341 KB)]    **IEEE JNL**

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### 9 RiboWeb: an ontology-based system for collaborative molecular biology
*Altman, R.B.; Buda, M.; Chai, X.J.; Carillo, M.W.; Chen, R.O.; Abernethy, N.F.;*
Intelligent Systems, IEEE [see also IEEE Expert] , Volume: 14 , Issue: 5 , Sept.-Oct. 1999
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[Abstract]    [PDF Full-Text (796 KB)]    **IEEE JNL**

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### 10 Bottom-up construction of ontologies
*van der Vet, P.E.; Mars, N.J.I.;*
Knowledge and Data Engineering, IEEE Transactions on , Volume: 10 , Issue: 4 , July-Aug. 1998
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[Abstract]    [PDF Full-Text (404 KB)]    **IEEE JNL**

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### 11  Rapid development of large knowledge bases
*Barbulescu, M.; Balan, G.; Boicu, M.; Tecuci, G.;*
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[Abstract]    [PDF Full-Text (528 KB)]    **IEEE CNF**

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*Venkataraman, P.; Mendonca, D.;*
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[Abstract]    [PDF Full-Text (473 KB)]    **IEEE CNF**

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### 13  Using preference order in ontologies
*Heymans, S.; Vermeir, D.;*
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### 14  Structured Knowledge Source Integration and its applications to information fusion
*Masters, J.;*
Information Fusion, 2002. Proceedings of the Fifth International Conference on , Volume: 2 , 8-11 July 2002
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### 15  An architecture for providing information anytime, anywhere and on any device-an ontological approach
*Capraro, G.T.; Berdan, G.B.; Spina, J.; Liuzzi, R.A.; Berra, P.B.;*
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[Abstract]    [PDF Full-Text (670 KB)]    **IEEE CNF**

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16 **240,000 concepts and relations-towards mega knowledge bases for real-world applications**
*Hahn, U.; Schulz, S.;*
Systems, Man and Cybernetics, 2002 IEEE International Conference on , Volume: 7 , 6-9 Oct. 2002
Pages:6 pp. vol.7

[Abstract]   [PDF Full-Text (513 KB)]   **IEEE CNF**

17 **Combining ontologies and document retrieval techniques: a case study for an e-learning scenario**
*Baumann, S.; Dengel, A.; Junker, M.; Kieninger, T.;*
Database and Expert Systems Applications, 2002. Proceedings. 13th International Workshop on , 2-6 Sept. 2002
Pages:133 - 137

[Abstract]   [PDF Full-Text (258 KB)]   **IEEE CNF**

18 **Specifying ontologies: linguistic aspects in problem-driven knowledge engineering**
*Urro, R.; Winiwarter, W.;*
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Pages:159 - 166 vol.2

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19 **A hypertext based diagnostic system for aiding in the detection of vibration defaults of rotating machines**
*Paupe, C.-C.; Morizet-Mahoudeaux, P.; Kassel, G.;*

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## 20 Extracting ontologies from legacy systems for understanding and re-engineering
*Hongji Yang; Zhan Cui; O'Brien, P.;*
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## 22 Integrating enterprise information models in Carnot
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1 , Jan.-Feb. 2002
Pages:1 - 12

[Abstract]    [PDF Full-Text (216 KB)]    IEEE JNL

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## 24 Enterprise knowledge management
*O'Leary, D.E.;*
Computer , Volume: 31 , Issue: 3 , March 1998
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[Abstract]    [PDF Full-Text (716 KB)]    IEEE JNL

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## 25 Two aspects of the validation and verification of knowledge-based systems
*Bench-Capon, T.; Coenen, F.; Nwana, H.S.; Paton, R.; Shave, M.;*
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[Abstract]    [PDF Full-Text (568 KB)]    **IEEE JNL**

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26 **HowNet - a hybrid language and knowledge resource**
*Zhendong Dong; Qiang Dong;*
Natural Language Processing and Knowledge Engineering, 2003. Proceedings. 2003
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Pages:820 - 824

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27 **Linking ontologies: a communication case study**
*Yiching Wu; Meichun Liu;*
Natural Language Processing and Knowledge Engineering, 2003. Proceedings. 2003
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Pages:807 - 813

[Abstract]    [PDF Full-Text (410 KB)]    **IEEE CNF**

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28 **Building on solid foundations: from conceptual semantics to intelligent-systems applications**
*Ruspini, E.H.;*
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29 **An event-driven and ontology-based approach for the delivery and information extraction of e-mails**
*Heng-Hsou Chang; Yau-Hwang Ko; Jang-Pong Hsu;*
Multimedia Software Engineering, 2000. Proceedings. International Symposium
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[Abstract]    [PDF Full-Text (804 KB)]    **IEEE CNF**

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30 **Open texture and ontologies in legal information systems**
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[Abstract]    [PDF Full-Text (528 KB)]    **IEEE CNF**

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31 **An ontology for fault diagnosis in electrical networks**
*Bernaras, A.; Laresgoiti, I.; Bartolome, N.; Corera, J.;*
Intelligent Systems Applications to Power Systems, 1996. Proceedings, ISAP '96., International Conference on , 28 Jan.-2 Feb. 1996
Pages:199 - 203

[Abstract]   [PDF Full-Text (408 KB)]   **IEEE CNF**

32 **Rapid knowledge base design via extension of mid-level knowledge components**
*Bostwick, D.; Everett, J.; Hunter, D.; Jones, E.;*
Integration of Knowledge Intensive Multi-Agent Systems, 2003. International Conference on , 30 Sept.-4 Oct. 2003
Pages:535 - 541

[Abstract]   [PDF Full-Text (556 KB)]   **IEEE CNF**

33 **A metadata architecture for mediated integration of product usage data [diagnostic maturation analysis]**
*Wilmering, T.J.; Jun Yuan; VanRossum, D.;*
AUTOTESTCON 2003. IEEE Systems Readiness Technology Conference.
Proceedings , 22-25 Sept. 2003
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34 **Using an ontology to improve search in a terrorism database system**
*Gruenwald, L.; McNutt, G.; Mercier, A.;*
Database and Expert Systems Applications, 2003. Proceedings. 14th International Workshop on , 1-5 Sept. 2003

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Pages:753 - 757

[Abstract]    [PDF Full-Text (305 KB)]    **IEEE CNF**

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### 35 **The Dreaming Knowledge Base**
*Assogna, P.;*
Database and Expert Systems Applications, 2002. Proceedings. 13th International
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[Abstract]    [PDF Full-Text (247 KB)]    **IEEE CNF**

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### 36 **BINGO!: bookmark-induced gathering of information**
*Sizov, S.; Theobald, M.; Siersdorfer, S.; Weikum, G.;*
Web Information Systems Engineering, 2002. WISE 2002. Proceedings of the Third
International Conference on , 12-14 Dec. 2002
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[Abstract]    [PDF Full-Text (2333 KB)]    **IEEE CNF**

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### 37 **A methodology for the computer-aided cleaning of complex knowledge databases**
*Alonso-Jimenez, J.A.; Borrego-Diaz, J.; Chavez-Gonzalez, A.M.; Gutierrez-Naranjo,
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the] , Volume: 3 , 5-8 Nov. 2002
Pages:1806 - 1811 vol.3

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### 38 **EER-CONCEPTOOL: a "reasonable" environment for schema and ontology sharing**
*Meisel, H.; Compatangelo, E.;*
Tools with Artificial Intelligence, 2002. (ICTAI 2002). Proceedings. 14th IEEE
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[Abstract]    [PDF Full-Text (382 KB)]    **IEEE CNF**

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### 39 **Ontology management in multi-agent system for knowledge logistics**
*Smirnov, A.; Pashkin, M.; Chilov, N.; Levashova, T.;*
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Pages:231 - 236 vol.3

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### 40 **Graphical knowledge-based protocols for chest pain management**
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*Deloule, F.; Roche, C.;*
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Pages:3857 - 3862 vol.5

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PAT. NO.    Title
1 6,510,406 **T** Inverse inference engine for high performance web search
2 6,263,335 **T** Information extraction system and method using concept-relation-concept (CRC) triples
3 6,154,213 **T** Immersive movement-based interaction with large complex information structures
4 6,076,088 **T** Information extraction system and method using concept relation concept (CRC) triples
5 5,794,050 **T** Natural language understanding system

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**1  Knowledge representation for commonsense reasoning with text**
Kathleen Dahlgren, Joyce McDowell, Edward P. Stabler
September 1989 **Computational Linguistics**, Volume 15 Issue 3
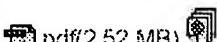
Full text available: 📄 pdf(2.52 MB) 📑    Additional Information: full citation, references, citings
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**2  Knowledge I: Kind Types in knowledge representation**
K. Dahlgren, J. McDowell
August 1986 **Proceedings of the 11th coference on Computational linguistics**

Full text available: 📄 pdf(692.37 KB)    Additional Information: full citation, abstract, references, citings

This paper describes Kind Types (KT), a system which uses commonsense knowledge to reason about natural language text. KT encodes some of the knowledge underlying natural language understanding, including category distinctions and descriptions differentiating real-world objects, states and events. It embeds an ontology reflecting the ordinary person's top-level cognitive model of real-world distinctions and a database of prototype descriptions of real-world entities. KT is transportable, empiric ...

**3  Hypermedia & TAL: Semantic Network Array Processor as a massively parallel computing platform for high performance and large-scale natural language processing**
Hiroaki Kitano, Dan Moldovan
August 1992 **Proceedings of the 14th conference on Computational linguistics - Volume 2**

Full text available: 📄 pdf(582.00 KB)    Additional Information: full citation, abstract, references

This paper demonstrates the utility of the Semantic Network Array Processor (SNAP) as a massively parallel platform for high performance and large-scale natural language processing systems. SNAP is an experimental massively parallel machine which is dedicated to, but not limited to, the natural language processing using semantic networks. In designing the SNAP, we have investigated various natural language processing systems and theories to determine the scope of the hardware support and a set o ...

**4  Special issue on word sense disambiguation: Introduction to the special issue on word sense disambiguation: the state of the art**

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Nancy Ide, Jean Véronis
March 1998 **Computational Linguistics**, Volume 24 Issue 1
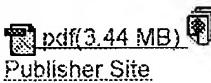
Full text available: pdf(3.44 MB)    Additional Information: full citation, references, citings
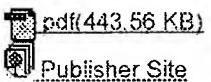Publisher Site

**5** Parsing parallel grammatical representations
Derrick Higgins
August 1998

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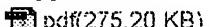Publisher Site

Traditional accounts of quantifier scope employ qualitative constraints or rules to account
for scoping preferences. This paper outlines a feature-based parsing algorithm for a
grammar with multiple simultaneous levels of representation, one of which corresponds to a
partial ordering among quantifiers according to scope. The optimal such ordering (as well as
the ranking of other orderings) is determined in this grammar not by absolute constraints,
but by stochastic heuristics based on the degree ...

**6** 7a—Capturing Meaning: Open hypermedia as a navigational interface to ontological
information spaces
Mark J. Weal, Gareth V. Hughes, David E. Millard, Luc Moreau
September 2001 **Proceedings of the twelfth ACM conference on Hypertext and
Hypermedia**
Full text available: pdf(275.20 KB)    Additional Information: full citation, abstract, references, index terms

Ontologies provide a powerful tool for distributed agent-based information systems.
However, in their raw form they can be difficult for users to interact with directly. Different
query architectures use structured query languages as an interface but these still require
the users to have an expert understanding of the underlying ontologies.

By using an Open Hypermedia model as an interface to an ontological information space,
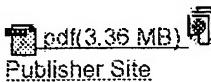users can interact with such a system using familiar browsi ...

**Keywords:** Agent Based Systems, Fundamental Open Hypermedia Model (FOHM),
Ontological Information Spaces

**7** A collaborative planning model of intentional structure
Karen E. Lochbaum
December 1998 **Computational Linguistics**, Volume 24 Issue 4

Full text available: pdf(3.36 MB)    Additional Information: full citation, abstract, references, citings
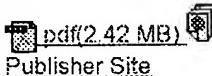Publisher Site

An agent's ability to understand an utterance depends upon its ability to relate that
utterance to the preceding discourse. The agent must determine whether the utterance
begins a new segment of the discourse, completes the current segment, or contributes to it.
The intentional structure of the discourse, comprised of discourse segment purposes and
their interrelationships, plays a central role in this process (Grosz and Sidner 1986). In this
paper, we provide a computational model for recognizi ...

**8** An implementable semantics for comparative constructions
Manny Rayner, Amelie Banks
June 1990 **Computational Linguistics**, Volume 16 Issue 2

h          c      g e      cf    c

Full text available: pdf(2.42 MB)   Additional Information: full citation, abstract, references, citings
Publisher Site

We describe a comprehensive treatment of the syntax and semantics of comparative constructions based on theoretical work by Pinkham, which can be implemented in a relatively straightforward fashion within a feature-based phrase-structure grammar. Comparatives are divided up into "clausal" and "phrasal" constructions; in contrast to most previous theories, however, phrasals are not regarded as reduced forms of clausals. We begin by defining a Montagovian semantics for phrasal comparatives that di ...

**9** The view from the trenches: issues in the ontology of restricted domains

David D. McDonald
October 2001 **Proceedings of the international conference on Formal Ontology in Information Systems - Volume 2001**
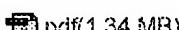
Full text available: pdf(1.34 MB)   Additional Information: full citation, abstract, references, index terms, review

We consider the impact of strict processing limitations on the design of an ontology for information extraction from newswire texts. We conclude that requiring online, real-time processing leads to a particular set of answers to fundamental issues of relation size and the choice of primary categories. We show how to satisfy these requirements by using relational categories directly during analysis and by using a reified lattice of their partial saturations that is annotated with the ling ...

**Keywords:** financial reports, information extraction, ontology design, type-raising

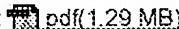**10** Natural language processing for information assurance and security: an overview and implementations

Mikhail J. Atallah, Craig J. McDonough, Victor Raskin, Sergei Nirenburg
February 2001 **Proceedings of the 2000 workshop on New security paradigms**

Full text available: pdf(1.29 MB)   Additional Information: full citation, references, citings, index terms

**11** Session E: Interaction in mixed realities: A gesture processing framework for multimodal interaction in virtual reality

Marc Erich Latoschik
November 2001 **Proceedings of the 1st international conference on Computer graphics, virtual reality and visualisation**
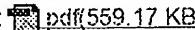
Full text available: pdf(559.17 KB)   Additional Information: full citation, abstract, references, index terms

This article presents a gesture detection and analysis framework for modelling multimodal interactions. It is particulary designed for its use in Virtual Reality (VR) applications and contains an abstraction layer for different sensor hardware. Using the framework, gestures are described by their characteristic spatio-temporal features which are on the lowest level calculated by simple predefined detector modules or *nodes*. These nodes can be connected by a data routing mechanism to perfor ...

**Keywords:** 3D HCI, gesture and speech input, gesture processing, gestures, immersive conditions, interaction in virtual reality, multimodal, multimodal interface framework

**12** An empirical assessment of semantic interpretation

Martin Romacker, Udo Hahn

h          c      g   e     cf    c

April 2000 **Proceedings of the first conference on North American chapter of the Association for Computational Linguistics**

Full text available: pdf(890.65 KB)     Additional Information: full citation, abstract, references, citings

We introduce a framework for semantic interpretation in which dependency structures are mapped to conceptual representations based on a parsimonious set of interpretation schemata. Our focus is on the empirical evaluation of this approach to semantic interpretation, i.e., its quality in terms of recall and precision. Measurements are taken with respect to two real-world domains, *viz.* information technology test reports and medical finding reports.

**13** Applications: Shalt2: a symmetric machine translation system with conceptual transfer

Koichi Takeda, Tetsuya Nasukawa, Naohiko Uramoto, Taijiro Tsutsumi
August 1992 **Proceedings of the 14th conference on Computational linguistics - Volume 3**

Full text available: pdf(447.39 KB)     Additional Information: full citation, abstract, references, citings

Shalt2 is a knowledge-based machine translation system with a symmetric architecture. The grammar rules, mapping rules between syntactic and conceptual (semantic) representations, and transfer rules for conceptual paraphrasing are all bi-directional knowledge sources used by both a parser and a generator.

**14** An integrated model of semantic and conceptual interpretation from dependency structures

Udo Hahn, Martin Romacker
July 2000 **Proceedings of the 17th conference on Computational linguistics - Volume 1**

Full text available: pdf(750.00 KB)     Additional Information: full citation, abstract, references

We propose a two-layered model for computing semantic and conceptual interpretations from dependency structures. Abstract interpretation schemata generate semantic interpretations of 'minimal' dependency subgraphs, while production rules whose specification is rooted in ontological categories derive a canonical conceptual interpretation from semantic interpretation structures. Configurational descriptions of dependency graphs increase the linguistic generality of interpretation schemata, while i ...

**15** The FINITE STRING newsletter: Abstracts of current literature

Computational Linguistics Staff
January 1986 **Computational Linguistics**, Volume 12 Issue 1

Full text available: pdf(2.24 MB)     Additional Information: full citation
Publisher Site

**16** Industrial practice I: Jena: implementing the semantic web recommendations

Jeremy J. Carroll, Ian Dickinson, Chris Dollin, Dave Reynolds, Andy Seaborne, Kevin Wilkinson
May 2004 **Proceedings of the 13th international World Wide Web conference on Alternate track papers & posters**

Full text available: pdf(139.86 KB)     Additional Information: full citation, abstract, references, index terms

The new Semantic Web recommendations for RDF, RDFS and OWL have, at their heart, the RDF graph. Jena2, a second-generation RDF toolkit, is similarly centered on the RDF graph. RDFS and OWL reasoning are seen as graph-to-graph transforms, producing graphs of virtual triples. Rich APIs are provided. The Model API includes support for other aspects of the RDF recommendations, such as containers and reification. The Ontology API includes support for RDFS and OWL, including advanced OWL Full support. ...

h          c     g  e     cf   c

**Keywords:** Jena, OWL, RDF, RDQL, semantic web

**17** Authoring Support: Designing annotation before it's needed

Frank Nack, Wolfgang Putz

October 2001 **Proceedings of the ninth ACM international conference on Multimedia**

Full text available: pdf(1.16 MB)     Additional Information: full citation, abstract, references, citings, index terms

This paper considers the automated and semi-automated annotation of audiovisual media in a new type of production framework, A4SM (Authoring System for Syntactic, Semantic and Semiotic Modelling). We present the architecture of the framework and outline the underlying XML-Schema based content description structures of A4SM. We then describe tools for a news and demonstrate how video material can be annotated in real time and how this information can not only be used for retrieval but also can be ...

**Keywords:** MPEG-7, XML Schema, automated annotation, news production, semantic networks

**18** From English to logic: context-free computation of "conventional" logical translation

Lenhart K. Schubert, Francis Jeffry Pelletier

January 1982 **Computational Linguistics**, Volume 8 Issue 1

Full text available: pdf(1.74 MB) Publisher Site     Additional Information: full citation, abstract, references, citings

We describe an approach to parsing and logical translation that was inspired by Gazdar's work on context-free grammar for English. Each grammar rule consists of a syntactic part that specifies an acceptable fragment of a parse tree, and a semantic part that specifies how the logical formulas corresponding to the constituents of the fragment are to be combined to yield the formula for the fragment. However, we have sought to reformulate Gazdar's semantic rules so as to obtain more or less 'conven ...

**19** Spatial hypertext: designing for change

Catherine C. Marshall, Frank M. Shipman

August 1995 **Communications of the ACM**, Volume 38 Issue 8

Full text available: pdf(609.49 KB)     Additional Information: full citation, references, citings, index terms, review

**20** Session: A specification language for lexical functional grammars

Patrick Blackburn, Claire Gardent

March 1995 **Proceedings of the seventh conference on European chapter of the Association for Computational Linguistics**

Full text available: pdf(632.81 KB) Publisher Site     Additional Information: full citation, abstract, references

This paper defines a language λ for specifying LFG grammars. This enables constraints on LFG's composite ontology (c-structures synchronised with f-structures) to be stated directly; no appeal to the LFG construction algorithm is needed. We use λ to specify schemata annotated rules and the LFG uniqueness, completeness and coherence principles. Broader issues raised by this work are noted and discussed.

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h          c     g  e     cf    c

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**21** Using text processing techniques to automatically enrich a domain ontology

Paola Velardi, Paolo Fabriani, Michele Missikoff

October 2001 **Proceedings of the international conference on Formal Ontology in Information Systems - Volume 2001**

Full text available: 📄 pdf(2.16 MB)     Additional Information: full citation, abstract, references, citings, index terms

> Though the utility of domain Ontologies is now widely acknowledged in an increasing number of domains, several barriers must be overcome before Ontologies become practical and useful tools. A critical issue is the task of identifying, defining, and entering the concept definitions. In case of large and complex application domains this task can be lengthy, costly, and controversial (since different persons may have different points of view about the same concept). To reduce time, cost (an ...

**22** EDGE - a graph based tool for specifying interaction

Michael F. Kleyn, Indranil Chakravarty

January 1988 **Proceedings of the 1st annual ACM SIGGRAPH symposium on User Interface Software**

Full text available: 📄 pdf(1.42 MB)     Additional Information: full citation, abstract, references, citings, index terms

> This paper describes a new methodology for specifying and constructing complex interaction dialogs for the design of user interfaces. The method is new in that it promotes a decomposition of the interaction in terms of events in AND/OR graphs called Event-Decomposition Graphs (EDG). These Event-Decomposition Graphs can be progressively refined to capture the detailed semantics of the dialog. Multithreaded interaction can be composed by joining several Event-Decomposition Graphs together in ...

**23** HyperCafe: narrative and aesthetic properties of hypervideo

Nitin Sawhney, David Balcom, Ian Smith

March 1996 **Proceedings of the the seventh ACM conference on Hypertext**

Full text available: 📄 pdf(1.22 MB)     Additional Information: full citation, references, citings, index terms

**Keywords:** aesthetics, digital video, multi-threaded narratives, navigation, temporal links

**24** Syntax and semantics: Canonical representation in NLP system design: a critical evaluation
Kent Wittenburg, Jim Barnett
February 1988 **Proceedings of the second conference on Applied natural language processing**

Full text available: pdf(673.61 KB)                    Additional Information: full citation, abstract, references, citings
Publisher Site

This paper is a critical evaluation of an approach to control in natural language processing systems which makes use of canonical structures as a way of collapsing multiple analyses in individual components. We give an overview here of how the Lucy natural language interface system currently realizes this control model and then evaluate what we take to be the strengths and weaknesses of such an approach. In particular, we conclude that the use of canonical structures can restrain combinatorial e ...

**25** met*: a method for discriminating metonymy and metaphor by computer
Dan Fass
March 1991 **Computational Linguistics**, Volume 17 Issue 1

Full text available: pdf(2.89 MB).    Additional Information: full citation, abstract, references, citings
Publisher Site

The met* method distinguishes selected examples of metonymy from metaphor and from literalness and anomaly in short English sentences. In the met* method, literalness is distinguished because it satisfies contextual constraints that the nonliteral others all violate. Metonymy is discriminated from metaphor and anomaly in a way that [1] supports Lakoff and Johnson's (1980) view that in metonymy one entity stands for another whereas in metaphor one entity is viewed as another, [2] permits chains o ...

**26** Special issue of the lexicon: The subworld concept lexicon and the lexicon management system
Sergei Nirenburg, Victor Raskin
July 1987 **Computational Linguistics**, Volume 13 Issue 3-4

Full text available: pdf(1.22 MB)    Additional Information: full citation, abstract, references, citings
Publisher Site

Natural language processing systems require three different types of lexicons: the concept lexicon that describes the (sub)world ontology and the analysis and generation lexicons for natural languages. We argue that the acquisition of the concept lexicon must precede any lexical work on natural language and that a comprehensive lexicon management system (LMS) is necessary for lexicon acquisition in large-scale applications. We describe the interactive concept lexicon acquisition module of the LM ...

**27** Session: Term extraction + term clustering: an integrated platform for computer-aided terminology
Didier Bourigault, Christian Jacquemin
June 1999 **Proceedings of the ninth conference on European chapter of the Association for Computational Linguistics**

Full text available: pdf(749.27 KB)                    Additional Information: full citation, abstract, references, citings
Publisher Site

A novel technique for automatic thesaurus construction is proposed. It is based on the complementary use of two tools: (1) a Term Extraction tool that acquires term candidates from tagged corpora through a shallow grammar of noun phrases, and (2) a Term Clustering tool that groups syntactic variants (insertions). Experiments performed on corpora in three technical domains yield clusters of term candidates with precision rates

h          c    g e    cf    e              e ge        e                        g c

between 93% and 98%.

**28** Building knowledge base management systems

John Mylopoulos, Vinay Chaudhri, Dimitris Plexousakis, Adel Shrufi, Thodoros Topologlou

December 1996 **The VLDB Journal — The International Journal on Very Large Data Bases**, Volume 5 Issue 4

Full text available: pdf(403.22 KB)    Additional Information: full citation, abstract, index terms

Advanced applications in fields such as CAD, software engineering, real-time process control, corporate repositories and digital libraries require the construction, efficient access and management of large, shared knowledge bases. Such knowledge bases cannot be built using existing tools such as expert system shells, because these do not scale up, nor can they be built in terms of existing database technology, because such technology does not support the rich representational structure and infer ...

**Keywords:** Concurrency control, Constraint enforcement, Knowledge base management systems, Rule management, Storage management

**29** A query based approach for integrating heterogeneous data sources

Ruxandra Domenig, Klaus R. Dittrich

November 2000 **Proceedings of the ninth international conference on Information and knowledge management**

Full text available: pdf(213.15 KB)    Additional Information: full citation, references, index terms

**30** Bioinformatics (BIO): An architecture for biological information extraction and representation

Aditya Vailaya, Peter Bluvas, Robert Kincaid, Allan Kuchinsky, Michael Creech, Annette Adler

March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**

Full text available: pdf(355.71 KB)    Additional Information: full citation, abstract, references

Technological advances in biomedical research are generating a plethora of heterogeneous data at a high rate. There is a critical need for extraction, integration and management tools for information discovery and synthesis from these heterogeneous data. In this paper, we present a general architecture, called ALFA, for information extraction and representation from diverse biological data. The ALFA architecture consists of: (i) a networked, hierarchical object model for representing information ...

**Keywords:** bioinformatics, filtering, heterogeneous data, information representation, information retrieval, interactive text mining, software architecture, user-guided information extraction

**31** Document reuse and semantics: Towards a semantics for XML markup

Allen Renear, David Dubin, C. M. Sperberg-McQueen

November 2002 **Proceedings of the 2002 ACM symposium on Document engineering**

Full text available: pdf(72.89 KB)    Additional Information: full citation, abstract, references, citings, index terms

Although XML Document Type Definitions provide a mechanism for specifying, in machine-readable form, the syntax of an XML markup language, there is no comparable mechanism for specifying the *semantics* of an XML vocabulary. That is, there is no way to characterize the meaning of XML markup so that the facts and relationships represented by the occurrence of XML constructs can be explicitly, comprehensively, and mechanically

identified. This has serious practical and theoretical consequence ...

**Keywords**: SGML, XML, knowledge representation, markup, semantics

**32** Record-boundary discovery in Web documents

D. W. Embley, Y. Jiang, Y.-K. Ng

June 1999 **ACM SIGMOD Record , Proceedings of the 1999 ACM SIGMOD international conference on Management of data**, Volume 28 Issue 2

Full text available: pdf(1.36 MB)     Additional Information: full citation, abstract, references, citings, index terms

Extraction of information from unstructured or semistructured Web documents often requires a recognition and delimitation of records. (By "record" we mean a group of information relevant to some entity.) Without first chunking documents that contain multiple records according to record boundaries, extraction of record information will not likely succeed. In this paper we describe a heuristic approach to discovering record boundaries in Web documents. In our approach, we capture ...

**33** Dependency Analyzer: a knowledge-based approach to structural disambiguation

Katashi Nagao

August 1990 **Proceedings of the 13th conference on Computational linguistics - Volume 2**

Full text available: pdf(542.06 KB)     Additional Information: full citation, abstract, references, citings

To resolve structural ambiguities in syntactic analysis of natural language, which are caused by prepositional phrase attachment, relative clause attachment, and so on, we developed an experimental system called the *Dependency Analyzer*. The system uses instances of dependency structures extracted from a terminology dictionary as a knowledge base. Structural (attachment) ambiguity is represented by showing that a word has several words as candidate modifiees. The system resolves such ambig ...

**34** Automating review of forms for international trade transactions: a natural language processing approach

V. Dhar, P. Ranganathan

December 1986 **ACM SIGOIS Bulletin , Proceedings of the third ACM-SIGOIS conference on Office automation systems**, Volume 7 Issue 2-3

Full text available: pdf(871.03 KB)     Additional Information: full citation, abstract, references, index terms

A major challenge in Office Automation is one of automating routine jobs that involve large-scale processing of ill-formed natural language data. Such data are often present in documents such as forms where it is necessary and/or practical to allow latitude in how the forms may be filled. In this paper, we describe a computational model designed to process free-form textual data in application forms for Letters of Credit (LC), which represent a common vehicle for initiating international tr ...

**35** Papers: Symbolic word clustering for medium-size corpora

Benoît Habert, Elie Naulleau, Adeline Nazarenko

August 1996 **Proceedings of the 16th conference on Computational linguistics - Volume 1**

Full text available: pdf(460.55 KB)     Additional Information: full citation, abstract, references

When trying to identify essential concepts and relationships in a medium-size corpus, it is not always possible to rely on statistical methods, as the frequencies are too low. We present an alternative method, symbolic, based on the simplification of parse trees. We discuss the results on nominal phrases of two technical corpora, analyzed by two different robust parsers used for terminology updating in an industrial company. We compare our
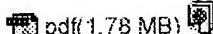
results with Hindle's scores of similarity.

**36** A computational treatment of lexical rules in HPSG as covariation in lexical entries
W. Detmar Meurers, Guido Minnen
December 1997 **Computational Linguistics**, Volume 23 Issue 4

Full text available: pdf(1.78 MB)    Additional Information: full citation, abstract, references, citings,
Publisher Site

This paper proposes a new computational treatment of lexical rules as used in the *HPSG*
framework. A complier is described which translates a set of lexical rules and their
interaction into a definite clause encoding, which is called by the base lexical entries in the
lexicon. This way, the disjunctive possibilities arising from lexical rule application are
encoded as systematic covariation in the specification of lexical entries. The compiler
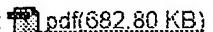ensures the automatic transfer of properties n ...

**37** Issues in relating syntax and semantics
Daniel Jurafsky
August 1988 **Proceedings of the 12th conference on Computational linguistics - Volume
1**

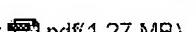Full text available: pdf(682.80 KB)    Additional Information: full citation, references, citings

**38** Conceptual analysis of lexical taxonomies: the case of WordNet top-level
Aldo Gangemi, Nicola Guarino, Alessandro Oltramari
October 2001 **Proceedings of the international conference on Formal Ontology in
Information Systems - Volume 2001**

Full text available: pdf(1.27 MB)          Additional Information: full citation, abstract, references, citings, index
terms, review

In this paper we propose an analysis and an upgrade of WordNet's top-level synset
taxonomy. We briefly review WordNet and identify its main semantic limitations. Some
principles from a forthcoming *OntoClean* methodology are applied to the ontological
analysis of WordNet. A revised top-level taxonomy is proposed, which is meant to be more
conceptually rigorous, cognitively transparent, and efficiently exploitable in several
applications.

**Keywords**: WordNet, ontology, taxonomies, top-level

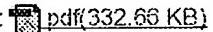**39** Intelligent web information access: An intelligent search agent system for semantic
information retrieval on the internet
Carmine Cesarano, Antonio d'Acierno, Antonio Picariello
November 2003 **Proceedings of the fifth ACM international workshop on Web
information and data management**

Full text available: pdf(332.66 KB)    Additional Information: full citation, abstract, references, index terms

In this paper we describe a prototype system for information retrieval on the Internet. Our
idea is that the Web has to be searched both *semantically* and *syntactically*. In order to
automatically categorize the web pages *on the fly* we propose a novel approach based on
ontology and semantic networks and we describe a prototype system based on the
Intelligent Agent Paradigm. Preliminary experiments are shown and discussed while
describing open problems and on-going research.

**Keywords**: information retrieval, ontology, semantic network, web agents

**40** Floating constraints in lexical choice
Michael Elhadad, Jacques Robin, Kathleen McKeown
June 1997 **Computational Linguistics**, Volume 23 Issue 2
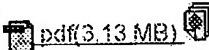
Full text available: pdf(3.13 MB)    Additional Information: full citation, abstract, references, citings
Publisher Site

Lexical choice is a computationally complex task, requiring a generation system to consider
a potentially large number of mappings between concepts and words. Constraints that aid
in determining which word is best come from a wide variety of sources, including syntax,
semantics, pragmatics, the lexicon, and the underlying domain. Furthermore, in some
situations, different constraints come into play early on, while in others, they apply much
later. This makes it difficult to determine a systemati ...

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